

Please add the following new claims:

-- 41. A method of killing a tumor cell *in vivo*, comprising introducing into said cell a replication-conditional adenovirus vector comprising a tumor-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said vector.

42. A method of killing a tumor cell *ex vivo*, comprising obtaining a tumor cell, placing said cell into *in vitro* culture, and introducing into said cell a replication-conditional adenovirus vector comprising a tumor-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said vector.

19
43. The isolated cell of claim 19, wherein said cell is a producer cell line.

20
44. The isolated cell of claim 20, wherein said cell is a producer cell line. --

Please amend the remaining claims as follows:

1. (Once amended) A tissue-specific replication-conditional adenovirus vector [capable of tissue-specific replication] comprising:
a heterologous tissue-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said vector.

a4 7. (Once amended) The vector of claim [6] 1, wherein said coding region is selected from the group consisting of E1a, E1b, and E2 and E4 coding regions.

9. (Once amended) A method for distributing a polynucleotide in a tissue *in vivo*, comprising introducing a replication-conditional adenovirus vector containing said polynucleotide into said tissue, wherein said vector contains a gene essential for vector replication, the coding region of which gene is operably linked to a heterologous transcriptional regulatory sequence that functions specifically in said tissue so that replication of the vector occurs in said tissue and not in a tissue in which said transcriptional regulatory sequence does not function.

10. (Once amended) The [vector] method of claim 9, wherein the transcriptional regulatory sequence is selected from the group consisting of promoters and enhancers.

11. (Once amended) The [vector] method of claim 10, wherein said promoter is selected from the group consisting of α -fetoprotein, DF3, tyrosinase, CEA, surfactant, and ErbB2.

a6 16. (Once amended) The method of claim [15] 9, wherein said coding region that is operably linked to said transcriptional regulatory sequence is selected from the group consisting of E1a, E1b, E2, and E4 coding regions.

a7
59b B27 19. (Once amended) [A] An isolated cell containing a tissue-specific replication-conditional adenovirus vector [capable of tissue-specific replication], said vector comprising

a7
could
sub B2 (cont'd)

a heterologous tissue-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said vector, wherein said transcriptional regulatory sequence functions in said cell so that replication of the vector occurs in said cell.

✓ ✓ ✓
In claims 20, 21 and 22, line 1, after "The" and before "cell" please insert -- isolated --.

a8

26. (Once amended) The isolated cell of claim [25] 19, wherein said coding region that is operably linked to said transcriptional regulatory sequence is selected from the group consisting of E1a, E1b, E2, and E4 coding regions.

✓ ✓
In claims 27 and 28, line 1, after "The" and before "cell" please insert -- isolated --.

11/29

(Once amended) A method of producing a tissue-specific replication-conditional adenovirus vector [capable of tissue-specific replication], said vector comprising a heterologous tissue-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said vector, comprising culturing the isolated cell of claim 19⁵ and recovering said vector from said cell.

a9
sub B37

30. (Once amended) [A] An isolated cell containing a tissue-specific replication-conditional adenovirus virion [capable of tissue-specific replication], said virion comprising a heterologous tissue-specific transcriptional regulatory sequence operably linked to the coding region of a gene that is essential for replication of said virion, wherein said transcriptional regulatory sequence functions in said cell so that replication of the virion occurs in said cell.